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REMARKS

The Office Action dated 23 March 2005 has been reviewed, and the comments of the U.S. Patent Office have been considered. Claims 4-16 were previously canceled without prejudice or disclaimer, claims 1, 17, 18 and 23 are currently amended, and claims 2, 3, 19-22 and 24 remain as previously presented. Thus, claims 1-3 and 17-24 are respectfully submitted for consideration by the Examiner.

Claims 3 and 19 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the enablement requirement. In particular, the Office Action asserts that the "equations claimed in these claims is not properly described in the specification such that one of ordinary skill in the art would know how to use the equation or where the equation was developed from." Additionally, the Office Action presents two hypothetical sets of conditions. These rejections under 35 U.S.C. § 112, first paragraph, are respectfully traversed in view of the following comments.

First, with respect to the assertion that one of ordinary skill in the art would not know from whence the equation the equation was developed, Applicants' specification as originally filed includes a detailed development from page 5, line 4, through page 6, line 15. The development begins with the Ideal Gas Law and concludes with Applicants' equation for computing C_p , which is a temperature-compensated pressure (alternatively described at page 6, lines 4-5, as a temperature-corrected pressure). As such this first assertion in the Office Action is respectfully traversed as being erroneous.

Second, with respect to the assertion that one of ordinary skill in the art would not know how to use the equation, Applicants' specification as originally filed describes at, for example, page 6, lines 19-25, that:

"the measured pressure decay determined by a comparison between P_0 and P_2 (the pressure measured at the second point in time) will be a function only of system leakage. If the temperature-compensated or -corrected pressure, P_c , is greater than the actual, nominal pressure measured at the second point in time (i.e., when T_2 was measured), then there must have been detectable leakage from the system. If P_c is not greater than the nominal pressure measured at T_2 , no leak is detected."

Thus, a comparison between P_c and P_2 is indicative of system leakage, independent of temperature changes. System leakage is indicated if P_c is greater than P_2 , and system integrity,

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i.e., no leakage, is indicated if P_0 is not greater than P_2 . As such this second assertion in the Office Action is respectfully traversed as also being erroneous.

Third, with respect to the two hypothetical sets of conditions, the Office Action appears to calculate two different quantities based on two different equations in Applicants' specification as originally filed. Specifically, the Office Action appears to calculate a pressure P_2 at a second point in time (i.e., T_2) using the Ideal Gas Law, and then appears to calculate a temperature-compensated pressure P_0 using Applicants' equation at page 6, line 15. For each of the hypothetical cases, the Office Action then draws a conclusion, each of which is contradictory to Applicants' specification, that is unsubstantiated by any nexus with the Office Action's calculations of P_2 and P_0 , or by any other basis. Section 2164.04 of the M.P.E.P. states that "[i]n order to make a rejection [under 35 U.S.C. § 112, first paragraph], the examiner has the initial burden to establish a reasonable basis to question the enablement provided for the claimed invention." It is respectfully submitted that insofar as the Office Action merely contradicts Applicants' specification without establishing a reasonable basis to question the enablement provided for Applicants' claimed invention, the Office Action fails to meet the burden necessary to make the rejection under 35 U.S.C. § 112, first paragraph.

For at least any of the above reasons, it is respectfully submitted that the rejections under 35 U.S.C. § 112, first paragraph, of claims 3 and 19 should be withdrawn.

Claims 1-3 and 17-24 were rejected under 35 U.S.C. § 112, first paragraph, as allegedly failing to comply with the written description requirement. In particular, the Office Action alleges that the application as originally filed fails to provide support for "supplying from the tank fuel being combusted by the automotive vehicle," as recited in Applicants' claims 1 and 17, "combusting in the internal combustion engine fuel from the fuel tank," as recited in Applicants' claim 18, and "supplying fuel from the fuel tank to the engine," as recited in Applicants' claim 23. These rejections are respectfully traversed in view of the above amendments to claims 1, 17, 18 and 23, and in view of the following comments.

Claims 1, 17, 18 and 23 have been amended in accordance with the changes discussed during the interview on 2 August 2005. The Office Action states that these amendments overcome the rejections under 35 U.S.C. § 112, first paragraph, of claims 1-3 and 17-24, and therefore it is respectfully submitted that these rejections should be withdrawn.

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Claims 1, 2, 17, 18 and 20-24 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 5,263,462 to Reddy in view of "Correcting Pressure Change Leak Test Data for Changes in Temperature" in Nondestructive Testing Handbook edited by Robert C. McMaster ("McMaster"). These rejections are respectfully traversed in view of the following comments.

Reddy's Figure 1 shows, and Reddy states at column 3, lines 23-25, that a first embodiment of a vapor handling system includes a pressure switch 22 that is set when system pressure exceeds a preselected pressure while the engine is not running. Referring additionally to Figure 2, Reddy states at column 3, lines 56-61, that at step 50 an occurrence of a soak condition is determined, by checking if tank temperature switch 20 is set, before continuing at step 52 to check if the pressure switch 22 is set.

Alternatively, Reddy's Figure 3 shows, and Reddy states at column 4, lines 39-44, that a second embodiment of a vapor handling system includes a vacuum switch 82 that is set when vacuum created in a fuel tank 72 attains a preselected level. Referring additionally to Figure 4, Reddy states at column 4, line 54, to column 5, line 12, that at step 100 an occurrence of sufficient engine run time is initially determined, by checking clock 86, before continuing at step 102 to determine if engine coolant temperature 84 is less than a preselected value, using engine coolant sensor 84, before continuing at step 104 to check if the vacuum switch 82 is set. Reddy also states at column 5, lines 13-23, that a variant of the second embodiment replaces the vacuum switch 82 with an air flow sensor that determines if the volume of air per unit time that enters a canister 70 exceeds a predetermined value.

In each embodiment, Reddy is making determinations as to whether preselected or predetermined, i.e., absolute, values of temperature, time, and pressure, vacuum or air flow are achieved. In particular, Reddy uses determinations of absolute values for temperature or time only as criteria for whether or not to proceed with determining whether or not an absolute value of pressure has been achieved. Reddy is completely silent as to any relative relationship between pressure/vacuum/air flow and temperature or time. Moreover, Reddy is completely silent as to measuring temperature or pressure/vacuum/air flow at first and second times.

In contrast, McMaster states that a short duration pressure hold test is conducted under varying temperature conditions and requires measurement of both gauge pressure and temperature. Further, McMaster states that pressure loss per unit time is determined from the

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initial gauge pressure P_1 and temperature T_1 , and the final gauge pressure P_2 and temperature T_2 . Thus, McMaster is making determinations as to a relative change, i.e., pressure loss per unit time.

It is respectfully submitted that there is no motivation or suggestion, other than Applicants' own specification, as to why one of ordinary skill in the art would modify Reddy's vapor handling system, which measures only absolute values of temperature or pressure at a single point in time, with McMaster's computation for pressure loss per unit time, which measures relative temperatures and pressures at two points in time. Section 2143.01 of the M.P.E.P. states that the prior art must suggest the desirability of the claimed invention, and that the proposed modification cannot change the principle of operation of a reference. It is respectfully submitted that the modification of Reddy in view of McMaster, as proposed in the Office Action, is undesirable to and would change the principle of operation of Reddy. As such, the Office Action has failed to establish a *prima facie* case of obviousness, and the rejections under 35 U.S.C. § 103(a) of claims 1, 2, 17, 18 and 20-24 should be withdrawn.

Finally, the Office Action states that US Patent No. 6,089,081 is mentioned as a courtesy for "Applicant to review the patent in order to avoid a Double Patenting rejection." However, no such rejection is set forth in the Office Action. It is respectfully requested that either a Double Patenting rejection be explicitly set forth, or that the next communication include a statement that there is no Double Patenting rejection in view of US Patent No. 6,089,081.

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CONCLUSION

In view of the foregoing amendments and remarks, Applicants respectfully request the reconsideration of this Application and the prompt allowance of claims 1-3 and 17-24.


Should the Examiner feel that there are any issues outstanding after consideration of this reply, the Examiner is invited to contact Applicants' undersigned representative to expedite prosecution of the application.

EXCEPT for issue fees payable under 37 C.F.R. § 1.18, the Commissioner is hereby authorized by this paper to charge any additional fees during the entire pendency of this application including fees due under 37 C.F.R. §§ 1.16 and 1.17 which may be required, including any required extension of time fees, or credit any overpayment to Deposit Account 08-1641. This paragraph is intended to be a **CONSTRUCTIVE PETITION FOR EXTENSION OF TIME** in accordance with 37 C.F.R. § 1.136(a)(3).

Respectfully submitted,

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